

ABSTRACT OF THE DISCLOSURE

A voltage regulator comprises a differential amplifier for comparing an output of a reference voltage circuit with an output of a voltage dividing circuit and outputting a first signal and a phase compensating circuit having a resistor and a capacitor connected in series. A MOS transistor is connected between a power supply and the phase compensating circuit and has a gate electrode connected to receive the output of the differential amplifier and a grounded source. A constant current circuit is connected between the MOS transistor and ground, and an output transistor having a gate electrode connected to receive a second signal output from a connection point between the MOS transistor and the phase compensating circuit is connected between the power supply and the voltage dividing circuit. A resistor side of the phase compensating circuit is connected to an output terminal of the differential amplifier and a capacitor side of the phase compensating circuit is connected to a drain electrode of the MOS transistor.